NOAA Teacher at Sea
Mike Laird
Onboard NOAA Ship RAINIER
July 24 - August 13, 2005

Log 1

Days 1 & 2: Monday July 25 and Tuesday July 26
Time: 13:00
Latitude: 55°37.1' N
Longitude: 156°46.6' W
Visibility: 10 nautical miles (nm)
Wind Direction: 140°
Wind Speed: 5 kts
Sea Wave Height: 0-1'
Swell Wave Height: 2'
Sea Water Temperature: 12.2° C
Sea Level Pressure: 1009.8 mb
Cloud Cover: Stratus

Science and Technology Log

My name is Mike Laird, and I am a 5th and 6th grade Science and Math teacher from Flagstaff, AZ. I am onboard the NOAA ship RAINIER participating in a three-week hydrographic research cruise. The primary objective of the scientists and crew of the RAINIER is to gather data that can be used to create accurate maps of the ocean floor and coastline. I joined the team in Kodiak, AK.

We put to sea Monday afternoon after completing repairs on one of the six survey launches carried by the RAINIER. Our destination is Mitrofania Island, a small island southwest of Kodiak. This location has been selected for data collection, because there is little information available on current nautical charts. Our route took us through Shelikof Strait (between the Alaska Peninsula and Kodiak Island).

We then tracked south between the Semidi Islands and Chirikof Island. As we transited this track, the RAINIER used its onboard sonar to gather ocean depth information for this location. As other NOAA hydrographic ships follow this course, they will also gather data. Over time and using all the data collected by the various ships, an accurate nautical map of this area will be constructed.

Having completed this pass, we headed northwest toward Mitrofania. We sailed around the southern tip of the island and head for Cushing Bay, where we anchored for the initial phases of the data collection work. As we neared Cushing Bay, a small work team was deployed in one of the ship's skiffs to check a temporary (in place for thirty days or less)

tide station. The station must be checked to insure that it is operating correctly and transmitting accurate information back to the RAINIER. Data from the temporary tide station will be compared to data from the nearest official Coast Guard Tide Station and accurate tidal information for the area around Mitrofania Island can be derived. Accurate tidal information is critical, since it is used in the processing of the collected data. In addition to checking the tide station, the work crew will attempt to locate a spot on the shore to install a temporary GPS system. The closest land-based GPS systems are a distance away and could introduce error of up to three meters in the collected data. The successful installation of a closer, more reliable GPS would help increase the reliability of the data the team collects.

The end of the day has come. We are anchored in Cushing Bay, and I eagerly await tomorrow's arrival as I will be joining the launch 5 survey team.